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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,549	10/31/2003	Martin A. Allen	NOR / 1097	3068

37172 7590 06/29/2005

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EXAMINER	
DESAI, HEMANT	
ART UNIT	**PAPER NUMBER**
3721	

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No.	Applicant(s)	
	10/699,549	ALLEN ET AL.	
	Examiner	Art Unit	
	Hemant M. Desai	3721	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 25 May 2005.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 17-35 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 17-31 is/are rejected.

7)☒ Claim(s) 32-35 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5/5/05
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 17-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cran (3502322) in view of Capdeboscq (4614512).

Cran discloses a method for folding a moving web (sheet 12, fig. 2) having a first portion (center portion, see fig. 3) adjoining an adjacent second portion (left and right peripheral portion, see fig. 3), comprising moving the web in a machine direction (on belts 4, fig. 1), and applying a positive pressure differential (blast of air through pipe 16, fig. 2) to a second portion of the web (on the peripheral edges) thereby causing the second portion to fold toward the first portion about a fold line extending in the machine direction.

Cran, as mentioned above, discloses all the claimed limitations, except for applying negative pressure differential to the first portion of the web. However, Capdeboscq teaches to apply negative pressure differential (suction box 18, 20, fig. 1) to the first portion (central portion, 9, of blank 1, fig. 1) to guarantee that the first portion (9) of the blank is laid on the active part of the conveyor belts and therefore to guarantee that they are advanced at the cycle of the machine (see col. 3, lines 13-18). Therefore it would have been obvious to one having ordinary skill in the art at the time

the invention was made to apply negative pressure differential to the first portion of the web as taught by Capdeboscq in the method for folding a moving web of Cran to guarantee that the first portion of the web is laid on the active part of the conveyor belts and therefore to guarantee that they are advanced at the cycle of the machine.

The modified method of Cran, as mentioned above, meets all the claimed limitations, except for applying second and third negative pressure differential. The modified method of Cran teaches to apply negative pressure differential to the first portion of the blank. It would have been obvious to one having ordinary skill in the art at the time invention was made to separate the suction box into separate three suction boxes to make the suction more efficient and economical, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. Nerwin v. Erlichman, 168 USPQ 177, 179.

Regarding claims 21-25, Cran discloses that the positive pressure differential comprises impinging of airflow on the second portion of the web. Cran does not disclose expressly different directions of impinging airflow. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to provide different directions of impinging airflow because Applicant has not disclosed that by impinging airflow in different directions provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the direction of impinging airflow taught by Cran or the different directions of impinging airflow claimed in claims 21-25 because the different directions of impinging

airflow taught by Applicant (in claims 21-25) and the direction of impinging airflow taught by Cran perform the same function of causing the second portion to fold towards the first portion. Therefore, It would have been an obvious matter of design choice to modify Cran to obtain the invention as specified in claims 21-25.

Regarding claims 26-28, 30-31, Cran discloses a continuous member (1, fig. 1) in a space defined between the second portion and the first portion (see figs. 5-7) and the continuous member defines the longitudinal fold line about which the positive pressure differential causes the second portion to fold relative to the first portion (see figs. 8-9) and contacting the second portion with an inclined ramp (40, fig. 9) for moving the second portion relative to the first portion.

Response to Arguments

3. Applicant's arguments filed 4/25/2005 have been fully considered but they are not persuasive. Applicant argues that a person of ordinary skill in the art would not modify Cran to add the suction boxes (19, 20) and perforated endless belts (10, 11) because the rods (1; 15) in Cran mechanically constrain the blank to define the fold lines. Consequently, a person of ordinary skill in the art would not be motivated to further apply a negative pressure differential to a portion of the blank between these rods (1; 15), because the introduction of a negative pressure differential between rods (1; 15) is not necessary to cause folding in Cran. Applicant misinterpreted the function of rods (1) since the rods (1) do not guarantee that the first portion of the web is laid on the active part of the conveyor belts during folding and during the movement of the web. It is the platform (27, fig. 6) that guarantees that the first portion of the web is laid on the

active part of the conveyor and the rough surface of conveyor during the movement of the web (see col. 3, lines 60-61). And to do this during the folding the conveyor has to stop and thus making the operation intermittent. Capdeboscq teaches to apply negative pressure differential (suction box 18, 20, fig. 1) to the first portion (central portion, 9, of blank 1, fig. 1) continuously to guarantee that the first portion (9) of the blank is laid on the active part of the conveyor belts. And therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply negative pressure differential to the first portion of the web as taught by Capdeboscq in the method for folding a moving web of Cran to guarantee that the first portion of the web is laid on the active part of the conveyor belts and therefore to guarantee that they are advanced at the cycle of the machine and thus to make the folding process continuous. In response to applicant's argument regarding claims 18-20, the modified method of Cran, as mentioned above, teaches to apply negative pressure differential to the first portion of the blank. Regarding applying second and third negative pressure differential it would have been obvious to one having ordinary skill in the art at the time invention was made to separate the suction box into separate three suction boxes to make the suction more efficient and economical, since it has been held that constructing a formerly integral structure in various elements involves only routine skill. In response to applicant's argument regarding claims 21-25, Cran discloses the guide plates (17, fig. 2) which changes the direction of air curtain (see col. 2, lines 68-71). Regarding claims 26-27, Cran does disclose the rod (1, 15) to define the longitudinal fold. Regarding claim 29, applicant is not claiming that the first negative pressure differential to the first and

second portions of the nonwoven web and a second negative pressure differential to only the first portion of the nonwoven web.

Allowable Subject Matter

4. Claims 32-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hemant M. Desai whose telephone number is (571) 272-4458. The examiner can normally be reached on 7:00 AM-5: 30 PM, Mon-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi I. Rada can be reached on (571) 272-4467. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hemant M Desai
Examiner
Art Unit 3721

HMD

Stephen F. Gerrity
Primary Examiner
571-272-4460